

personnel may in reasonable circumstances constitute guarding by location.

Hopper: a box having a funnel-shaped bottom, or a bottom reduced in size, narrowed, or necked to receive material and direct it to a conveyor, feeder, or chute.

Mobile conveyor: a conveyor supported on a structure which is movable under its own power.

Overland conveyor: a single or series of belt conveyors designed to carry material across a distance, usually following the general contour of the load.

Portable conveyor: a transportable conveyor which is not self-propelled, usually having supports which provide mobility.

Screw conveyor: a conveyor screw revolving in a suitably shaped stationary trough or casing fitted with hangers, trough ends, and other auxiliary accessories.

Switch: a device for connecting two or more continuous package conveyor lines; an electrical control device; or a mechanism that transfers a trolley, carrier, or truck from one track to another at a converging or diverging section.

Take-up: the assembly of the necessary structural and mechanical parts that provides the means to adjust the length of belts, cables, chains, and similar transmission mechanisms to compensate for stretch, shrinkage, or wear, and to maintain proper tension.

Trolley conveyor: a series of trolleys supported from or within an overhead truck and connected by endless propelling means, such as chain, cable, or other linkage, with loads usually suspended from the trolleys.

SECTION 18

MOTOR VEHICLES AND AIRCRAFT

18.A GENERAL

18.A.01 Every person operating a motor vehicle shall possess, at all times while operating such vehicle, a permit valid for the equipment being operated.

18.A.02 Inspection, tests, maintenance, and repairs.

a. Inspections, tests, maintenance, and repairs shall be conducted by a qualified person and in accordance with the manufacturer's recommendations.

b. Before initial use, vehicles shall be inspected by a mechanic and found in safe operating condition. > ***This is a one-time inspection***

c. When dump trucks are brought onto a USACE job site they shall be inspected and found in compliance with the requirements of this Section before they are placed in service. This inspection shall be documented on a checklist.

d. All vehicles shall be inspected on a scheduled maintenance program.

e. Vehicles in use should be checked on a frequent basis to assure that the following parts, equipment, and accessories are in safe operating condition and free of apparent damage that could cause failure while in use:

- (1) service brakes, including trailer brake connections;
- (2) parking system (hand brake);
- (3) emergency stopping system (brakes);
- (4) tires;
- (5) horns;

- (6) steering mechanism;
- (7) coupling devices;
- (8) seat belts;
- (9) operating controls;
- (10) safety devices (e.g., backup alarms and lights, fire extinguishers, etc.); and
- (11) accessories including lights, reflectors, windshield wipers, and defrosters where such equipment is necessary.

f. Inspection, test, repair, and maintenance records shall be maintained at the site and shall be available on request to the designated authority.

18.A.03 Vehicles not meeting safe operating conditions shall be immediately removed from service, its use prohibited until unsafe conditions have been corrected, and reinspected before being placed in service again.

18.A.04 All vehicles or combination of vehicles operated between sunset and sunrise shall have the following lights:

- a. two headlights, one on each side of the front;
- b. at least one red taillight and one red or amber stoplight on each side of the rear;
- c. directional signal lights - both front and back; and
- d. three emergency flares, reflective markers, or equivalent portable warning device.

18.A.05 Brake systems.

- a. All vehicles, except trailers or semi-trailers having a gross weight of 2,270 kg (5,000 lbs) or less, shall be equipped with service brakes and manually-operated parking brakes.
- b. Service and parking brakes shall be adequate to control the movement of, to stop, and to hold the vehicle under all conditions of service.

c. Service brakes on trailers and semitrailers shall be controlled from the driver's seat of the prime mover.

d. Braking systems on every combination of vehicles shall be so designed as to be in approximate synchronization on all wheels and develop the required braking effort on the rear-most wheels first. The design shall also provide for application of the brakes by the driver of the prime mover from the cab. Exceptions to this are vehicles in tow by approved tow bar hitch.

18.A.06 Every motor vehicle shall have:

- a. a speedometer;
- b. a fuel gage;
- c. an audible warning device (horn) in operating condition;
- d. a windshield equipped with an adequate windshield wiper;
- e. an operable defrosting and defogging device;
- f. an adequate rear view mirror or mirrors;
- g. cabs, cab shields, and other protection to protect the driver from the elements and falling or shifting materials;
- h. nonslip surfaces on steps; and
- i. a power-operated starting device.

18.A.07 Glass in windshields, windows, and doors shall be safety glass. Any cracked or broken glass shall be replaced.

18.A.08 Trailers.

- a. All towing devices used on any combinations of vehicles shall be structurally adequate for the weight drawn and shall be properly mounted.
- b. A locking device or double safety system shall be provided on every fifth wheel mechanism and tow bar arrangement to prevent the accidental separation of towed and towing vehicles.
- c. Every trailer shall be coupled with safety chains or cables to the towing vehicle. Such chain or cable shall prevent the

separation of the vehicles in case of tow bar failure.

d. Trailers equipped with power brakes shall be equipped with a break-away device which effectively locks-up the brakes in the event the trailer separates from the towing vehicle.

18.A.09 Industrial and commercial vehicles shall meet the guarding and safety requirements of Section 16.B.

18.A.10 Dump trucks.

- a. All dump trucks shall be equipped with a holding device to prevent accidental lowering of the body while maintenance or inspection work is being done.
- b. All hoist levers shall be secured to prevent accidental starting or tripping of the mechanism.
- c. All off-highway end-dump trucks shall be equipped with a means (plainly visible from the operator's position while looking ahead) to determine whether the dump box is lowered.
- d. Trip handles for tailgates on all dump trucks shall be arranged to keep the operator in the clear.

18.A.11 All buses, trucks, and combinations of vehicles with a carrying capacity of 1,360 kg (1.5 tons) or over, when operated on public highways, shall be equipped with emergency equipment required by State laws but not less than:

- a. one red flag not less than 0.3 m (12 in) square with standard and three reflective markers which shall be available for immediate use in case of emergency stops.
- b. two wheel chocks for each vehicle or each unit of a combination of vehicles.
- c. at least one 2A:10B:C fire extinguisher (at least two properly

rated fire extinguishers are required for flammable cargoes).

18.A.12 Vehicle exhaust shall be controlled so that it will not present a hazard to the operator, attendants, or other personnel.

18.A.13 A safety tire rack, cage, or equivalent protection shall be provided and used when inflating, mounting, or dismounting tires installed on split rims, or rims equipped with locking rings or similar devices.

18.A.14 All rubber-tired motor vehicles shall be equipped with fenders and tires shall not extend beyond fenders: mud flaps may be used in lieu of fenders whenever motor vehicle equipment is not designed for fenders.

18.B OPERATING RULES

18.B.01 The principles of defensive driving shall be practiced.

18.B.02 Seat belts shall be installed and worn per 16.B.08: buses are exempt from this requirement.

18.B.03 At all times the operator must have the vehicle under control and be able to bring it to a complete stop within safe stopping distance.

18.B.04 Vehicles may not be driven at speeds greater than the posted speed limit, with due regard for weather, traffic, intersections, width and character of the roadway, type of motor vehicle, and any other existing condition.

18.B.05 Headlights shall be switched to low beam when approaching other vehicles.

18.B.06 Headlights shall be lighted from sunset to sunrise, during fog, smoke, rain, or other unfavorable atmospheric conditions, and at any other time when there is not sufficient light for the vehicle to be seen or the operator to see on the highway at a

distance of 150 m (500 ft).

18.B.07 Vehicles shall not be driven on a down grade with gears in neutral or clutch disengaged.

18.B.08 Railroad crossings and drawbridges.

- a. Upon approaching a railroad crossing or drawbridge, vehicles shall be driven at such a speed as to permit stopping before reaching the nearest track or the edge of the draw and shall proceed only if the course is clear.
- b. Vehicles transporting personnel, explosives or flammable or toxic substances shall stop at railroad crossings and drawbridges and shall not proceed until the course is clear, except at a railroad crossing or drawbridge protected by a traffic officer or a traffic signal giving a positive indication for approaching vehicles to proceed.

18.B.09 Vehicles shall not be stopped, parked, or left standing on any road, or adjacent thereto, or in any area in a manner as to endanger the vehicle, other vehicles, equipment, or personnel using or passing that road or area.

18.B.10 Vehicles shall not be left unattended until the motor has been shut off, the key removed (unless local regulations prohibit), parking brake set, and gear engaged in low, reverse, or park. If stopped on a hill or grade, front wheels shall be turned or hooked into the curb or the wheels securely chocked.

18.B.11 Vehicles carrying loads which project beyond the sides or rear of the vehicle shall carry a red flag, not less than 0.09 m² (12 in²), at or near the end of the projection; at night or when atmospheric conditions restrict visibility, a warning light shall be used in lieu of the red flag. Drivers will assure the load does not obscure vehicle lights and/or reflectors.

18.B.12 Employees shall not be permitted to get between a

towed and towing vehicle except when hooking or unhooking.

18.B.13 No vehicle or combination of vehicles hauling unusually heavy loads or equipment shall be moved until the driver has been provided with the required permits, the correct weights of the vehicles and load, and a designated route to be followed.

18.B.14 When backing or maneuvering, operators will take the applicable precautions outlined in 08.B.04. Prior to backing, and if a signal person or spotter is not used, operators will walk behind their vehicle to view the area for possible hazards.

18.B.15 When a bus, truck, or truck-trailer combination is disabled or parked on a highway or the adjacent shoulder, red flags shall be displayed during the daytime and reflector, flares, or electric lights displayed at night.

18.B.16 Loading vehicles.

- a. Drivers of trucks and similar vehicles shall leave the cab while the vehicle is being loaded when they are exposed to danger from suspended loads or overhead loading equipment, unless the cab is adequately protected.
- b. Vehicles shall not be loaded in a manner which obscures the driver's view ahead or to either side or which interferes with the safe operation of the vehicle.
- c. The load on every vehicle shall be distributed, chocked, tied down, or secured. Loads shall be covered when there is a hazard of flying/falling dirt, rock, debris, or material.

18.C TRANSPORTATION OF PERSONNEL

18.C.01 The number of passengers in passenger-type vehicles shall not exceed the number which can be seated.

18.C.02 Trucks used to transport personnel shall be equipped

with a securely anchored seating arrangement, a rear endgate, and guardrail. Steps or ladders, for mounting and dismounting, shall be provided.

18.C.03 All tools and equipment shall be guarded, stowed, and secured when transported with personnel.

18.C.04 No person will be permitted to ride with arms or legs outside of a vehicle body; in a standing position on the body; on running boards; seated on side fenders, cabs, cab shields, rear of the truck, or on the load.

18.C.05 All vehicles transporting personnel during cold or inclement weather shall be enclosed.

18.C.06 Explosives, flammable materials (excepting normal fuel supply), or toxic substances may not be transported in vehicles carrying personnel.

18.C.07 Vehicles transporting personnel shall not be moved until the driver has ascertained that all persons are seated and the guardrails and rear endgates are in place or doors closed.

18.C.08 Getting on or off any vehicle while it is in motion is prohibited.

18.C.09 All motor vehicles shall be shut down prior to and during fueling operations. > **See 16.A.14**

18.D ALL TERRAIN VEHICLES (ATV)

18.D.01. Every ATV operator shall possess a valid state drivers license and shall have completed an ATV training course prior to operation of the vehicle.

18.D.02 The manufacturer's recommended payload shall not be exceeded at any time.

18.D.03 Gloves and an approved motorcycle helmet with full face shield or goggles shall be worn at all times while operating an ATV.

18.D.04 ATVs are to be used off-road only (no paved road use).

18.D.05 ATVs shall be driven during daylight hours only.

18.D.06 Only ATVs with four or more wheeled are permitted to be used.

18.D.07 Passengers are prohibited on ATVs.

18.D.08 All ATVs shall be equipped with a warning signal device (horn).

18.E AIRCRAFT

18.E.01 All non-military aircraft shall be registered, certified in the appropriate category, and maintained in accordance with the airworthiness standards of the Federal Aviation Administration (FAA). (If used outside the United States, and not prohibited by other regulation such as ER 95-1-1, registration, certification, and maintenance in accordance with the standards of a comparable governing body of foreign or international authority may be substituted for those of the FAA.)

18.E.02 All contract pilots or pilots of chartered aircraft shall hold at least a commercial pilot certificate with instrument rating. All pilots of non-military aircraft shall possess ratings to comply with the FAA Regulation governing the aircraft and operations involved.

18.E.03 All non-military aircraft shall be equipped with a two-way radio.

18.E.04 All non-military flight operations shall be in accordance with the FAA rules governing conduct for the specific operation.

(Examples are 14 CFR 133 (FAR Part 133) - Rotocraft External-Load Operations; 14 CFR 135 (FAR Part 135) - Air Taxi Operators and Commercial Operators of Small Aircraft; and 14 CFR 91 (FAR Part 91) - General Operating and Flight Rules.)

18.E.05 All military flight operations shall be conducted under appropriate DOT/DOD regulations, such as the AR 95 Series.

DEFINITIONS

Motor Vehicle: any vehicle propelled by a self-contained power unit, except a vehicle designed solely for use on railways or other trackage, or equipment designed exclusively for use off the highway.

SECTION 19

FLOATING PLANT AND MARINE ACTIVITIES

19.A GENERAL

19.A.01 Floating plant inspection and certification.

a. All floating plant that are regulated by the USCG shall have current inspections and certificates issued by the USCG before being placed in service and a copy shall be posted in a public area on board the vessel. A copy of any USCG Form 835 issued to the vessel in the preceding year shall be available to the designated authority and a copy shall be on board the vessel.

b. All dredges and quarter boats not subject to USCG inspection and certification or not having a current American Bureau of Shipping (ABS) classification shall be inspected in the working mode annually by a marine surveyor accredited by the National Association of Marine Surveyors (NAMS) or the Society of Accredited Marine Surveyors (SAMS) and having at least five years experience in commercial marine plant and equipment. All other plant shall be inspected annually by a qualified person. The inspection shall be documented, and a copy of the most recent inspection report shall be posted in a public area on board the vessel and a copy shall be furnished to the designated authority upon request. The inspection shall be appropriate for the intended use of the plant and shall, as a minimum, evaluate structural integrity and compliance with NFPA 302, Fire Protection Standard for Pleasure and Commercial Motor Craft.

c. When any floating plant is brought onto the job site, before it is placed in service it shall be determined to be in safe operating condition.

d. Periodic inspections and tests shall assure that a safe